

COMMUNICATIONS RECEIVER WITH INTEGRATED
IF FILTER AND METHOD THEREFOR

5 ABSTRACT OF THE DISCLOSURE

 A receiver (22) includes an IF filter (44) and a nearby
process-variant circuit (80) formed on a common semiconductor
substrate (24). The actual center frequency of the IF filter
10 (44) is determined by resistors (70, 74) and capacitors (72,
76) exhibiting imprecise values and is unlikely to equal a
nominal center frequency. The process-variant circuit (80)
includes a test resistor (102) and test capacitor (104) formed
using the same resistor-forming and capacitor-forming processes
used to form the IF filter resistors (70, 74) and capacitors
15 (72, 76). In response a test signal (88) from the process-
variant circuit (80) and a reference signal (84) from a
process-invariant circuit (82), a tuning parameter for a
tunable local oscillator (90) is determined so that a local
oscillation signal (94) will exhibit a frequency which, when
20 mixed with an RF signal (38) yields an IF signal (42) at the
actual center frequency of the IF filter (44).